

face and by indications of connecting ridges between the eyes, posterior pair of eyes slightly wider apart than the anterior pair, of about equal size; lateral eyes placed obliquely, the anterior eyes fully twice the size of the central ones and four times as large as the posterior lateral ones; pectoral shield cordiform; falces smooth, with wavy external margins and hairy internal surfaces; maxillæ long, in-arched, smooth; abdomen rounded, slightly pointed behind, and almost flat below. Legs very short, their relative length 2, 1, 4, 3; the anterior pair as follows—femur 2 millimetres, tibia including knee-joint  $2\frac{1}{2}$ , tarsi 2; second pair—femur  $2\frac{1}{3}$ , tibia  $2\frac{1}{3}$ , tarsi 2; third pair—femur  $1\frac{1}{2}$ , tibia  $1\frac{1}{2}$ , tarsi  $1\frac{1}{2}$ ; fourth pair—femur 2, tibia  $1\frac{2}{3}$ , tarsi  $1\frac{1}{2}$ ; the legs entire therefore being—first pair  $6\frac{1}{2}$  millimetres, second  $6\frac{2}{3}$ , third  $4\frac{1}{2}$ , fourth  $5\frac{1}{8}$ . Length of cephalothorax and abdomen together 8 millimetres, of abdomen alone  $5\frac{1}{2}$ .

Antananarivo (*Kingdon*).

#### EXPLANATION OF PLATE LVIII.

- Fig. 1. *Epeira slateri*, Butl., p. 730.  
 1 a. ———, profile view.  
 1 b. ———, falx.  
 2. ——— *locuples*, Butl., p. 732.  
 2 a. ———, profile view.  
 2 b. ———, falx.  
 3. *Drassus malagassicus*, Butl., p. 730.  
 3 a. ———, profile view.  
 3 b. ———, palpus.  
 4. *Cærostris stygiana*, Butl., p. 731.  
 4 a. ———, profile view.  
 4 b. ———, view of abdomen from behind.  
 5. ——— *paradoxa*, Dolesch, p. 732.  
 5 a. ———, profile view.  
 5 b. ———, view of abdomen from behind.  
 6. *Pyresthesis cambridgii*, Butl., p. 733.  
 6 a. ———, profile view.  
 6 b. ———, caput with eyes.  
 6 c. ———, falx.

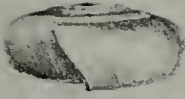
5. Descriptions of Shells from Perak and the Nicobar Islands. By Lieut.-Col. H. H. GODWIN-AUSTEN, F.Z.S., and G. NEVILL, C.M.Z.S.

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(Plates LIX. & LX.)

The shells from Perak described in this paper were collected by Surgeon-Major E. Townsend, then with H.M. 3rd Regt. Buffs, on the expedition against the rebellious Malays in 1875-76. Some of the smallest were found in the caves of Buket Punong or Pondong, an isolated conical limestone hill about 1000 feet high. The collection brought to Calcutta was a very extensive and most interesting one, proving the richness of the land-molluscan fauna of that portion of the Malay peninsula, and how much more still remains to be

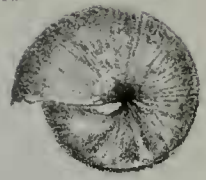
13



120



11



12



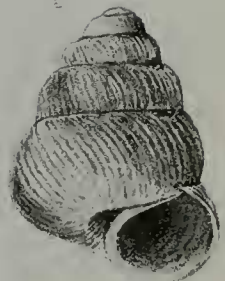
4 x 24



3a



11



6 x 12



8 x 24



7 x 24



PERAK AND NICOBAR SHELLS



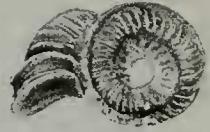
1 x 24



1a



1b



2 x 24



2a



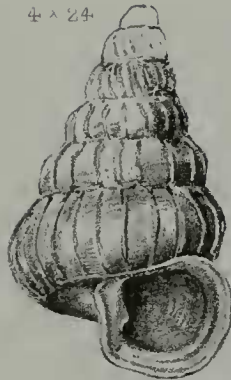
2b



3 x 24



4 x 24



5 x 8



5a



3a x 24



4a



4b



NEW PERAK SHELLS

(DIPLOMMATINÆ.)



found by future naturalists who may visit the country with more leisure than Dr. Townsend could give during the progress of a military expedition.

The thanks of all interested in malacology must be given him for the interesting new forms he has made us acquainted with.

The Nicobarese shells were collected by Dr. Ferdinand Stoliczka, and were among the large and valuable collections which he bequeathed to the Indian Museum, Calcutta.

ENNEA PERAKENSIS, n. sp. (Plate LIX. fig. 2.)

*Testa parva, viridescenti-crystallina, nitida, solida; spira paululum elevata, trochiformis, profunde et aperte umbilicata in modo "solariformi" dicto, apice obtuso atque lævi; superne elegantissime regulariterque transversim sulcata, sulcis pervalidis, planiusculis subrectisque (vix flexuosis); anfractu tertio sulcis confertis, ultimis duobus sulcis æqualibus atque distantibus ornatis; subtus ad basin subplana, circa umbilicum subcarinata, prope peripheriam sulcis validis subito fere evanidis, in umbilico rursus conspicue patentibus; anfract. 5, convexiusculi, ultimo basi plano; apertura perfecte quadrangularis, dentibus 4 coarctatis, dente parietali percrasso, oblique contorto, conspicue prominente; perist. album, incrassatum, marginibus subparallelis, fere rectis, margine externo inferne dente parvo munito et ad basin abrupte angulato, margine basali cum dente, paululum majore, in medio munito, margine columellari superne callositate levi ad dentem parietalem juncto, reflexo et paululum obliquo, inferne acute angulato et dente valido munito.*

Alt.  $1\frac{3}{5}$ , diam. 2 mill. The other specimen measures, alt.  $1\frac{1}{2}$ , diam.  $1\frac{1}{2}$  mill. (*G. N.*).

I obtained two fine specimens of this remarkable new species, by washing the larger shells obtained by Dr. Townsend in the Buket Pondong cave. I know of no shell which surpasses it in interest, as regards sculpture: the apical two whorls are smooth, the next closely, transversely sulcated, and the last two very conspicuously distantly so; the "sulci" are almost upright, only slightly flexuous, with their interstices about twice as broad as themselves; underneath, the base appears beautifully fimbriated near the margin, owing to these sulcations apparently suddenly stopping a short distance from the periphery, though in reality one can trace them across the base; but to do so requires the lens and a good light. To all appearance the middle of the base is smooth, polished and shining. These sulcations appear again within the deep, open, and solariform umbilicus, as conspicuous as ever. The characters of the aperture &c. are so excellently represented in Colonel Austen's figure, that it would be a waste of time to further describe them (*G. N.*).

From the peculiar form of this shell, Mr. Nevill considered it a new subgenus of *Ennea*; and following his description of it he says:—"It is of interest to note that, in the very extensive collection made by my friend Dr. Townsend in these caves, there was not so much as a broken piece of any species of *Streptaxis* or *Ennea*, both so



common in similar ground in the nearest known countries, Tenasserim and Penang."

I have deemed it best, considering that only two specimens were found, and that they are so similar in general form to immature specimens of *Ennea stenopylis*, Bs., from the Khasi hills, not to found this new subgenus until further examples are obtained proving that the shell as given in the Plate is a mature form; and I trust Mr. Nevill will pardon this caution on my part (*G.-A.*).

NANINA (MICROCYSTINA) TOWNSENDIANA, n. sp. (Plate LIX. fig. 1.)

*Testa minutissima*, *N. minimæ* (H. Adams, P. Z. S. 1869), *a me detectæ, affinis*; *vix rimata, planiuscula, vitrea, nitida et lævis*; *anfract. 4½, perlente crescentes, sutura impressa sejuncti, ultimo majore, prope aperturam vix dilatato, ad peripheriam rotundato, basi convexiusculo; apertura minima, angusta, margine columellari perobliquo vix descendente.*

Alt.  $\frac{1}{3}$  (prox.), diam. 1 (prox.) mill. (*G. N.*)

A small and almost microscopic form, which I obtained by washing larger shells found by Dr. Townsend in the Buket Pondong Cave. It belongs to a group which appears to me to abound nearly everywhere in the Indo-Malay Province, but which has hitherto been almost universally neglected, on account of the small size, and absence of marked sculpture and coloration, which characterize these shells. Species have nevertheless been described by MM. Issel (from Borneo), Martens, Semper, and Mörch (Eastern Archipelago), Benson (India and Burma), Morelet and H. Adams (Mascarene I.), &c. I have not any books by me for reference; but I am almost confident that it was for a species of this group that Mörch, Journ. de Conchyl. for 1872, formed a new subgenus "*Microcystina*" (as distinct from the sculptured *Microcystis*, of Beck), with *N. rinkii*, Mörch, from the Nicobar Islands, as his type! *Microcystina* seems to me to bear somewhat the same relationship to the larger and closely allied mollusks known as *Macrochlamys*, that the European species of *Vitrea* (of Fitzinger) do to *Hyalina* (*G. N.*).

M. Crosse has described<sup>1</sup> a new form from the same locality, *H. (Geotrochus) perakensis*.

CLAUSILIA? juv. (Plate LIX. fig. 8.)

Another young shell figured, which I doubtfully refer to the above genus (*G.-A.*).

Perak. (Indian Museum, Calcutta.)

PUPISOMA? sp. juv. (Plate LIX. fig. 7.)

This shell I have figured although young, it being often of importance to know the immature forms, which so puzzle a conchologist when sorting out a collection. It probably belongs to the above subgenus of Stoliczka (J. A. S. B. 1873, p. 32).

Alt. .045 inch. (*G.-A.*)

Perak. (Indian Museum, Calcutta.)

<sup>1</sup> Journ. de Conchyl. t. xix. p. 199, pl. viii. f. 4.